

REMARKS/ARGUMENTS

Favorable reconsideration of this application is requested in view of the above amendments and in light of the following remarks and discussion.

Claims 1, 3-10, and 12-16 are pending. Claims 1, 3-6, 9, and 10 are amended. Support for the amendments to Claims 1, 3-6, 9, and 10 is self-evident, but can also further be found in Figs. 8A and 9A, for example. No new matter is added. Claims 2 and 11 were canceled in a previous amendment. Claims 13 and 14 are withdrawn.

In the outstanding Office Action, Claims 1, 3-10, and 15-16 were rejected under 35 U.S.C. § 102(b) as anticipated by Sudani et al. (U.S. Patent No. 4,874,564, herein "Sudani"). Claims 1, 3-10, and 15-16 were rejected under 35 U.S.C. § 102(e) as anticipated by Ito (U.S. Patent Pub. 2005/0089597, herein "Ito"). Claim 12 was rejected under 35 U.S.C. § 103(a) as obvious over Sudani or Ito.

At the outset, Applicants note with appreciation the courtesy of a personal interview conducted by Examiner Chuong A. Luu to Applicants' representatives. The interview was conducted on July 11, 2006, and is substantially summarized below in combination with the Interview Summary provided by Examiner Luu in accordance with MPEP § 713.04.

Regarding the rejection of Claims 1, 3-10, and 15-16 as anticipated by Sudani, that rejection is respectfully traversed.

Amended independent Claim 1 recites:

An apparatus, for heat-processing a mask substrate, comprising:
a heating plate for heating the mask substrate, the mask substrate including a front surface and a side surface;
heating means for heating the heating plate; and
a frame member, having an inner peripheral surface and a first clearance between the inner peripheral surface and the side surface, being detachably disposed to the heating plate so that the frame member is disposed around the mask substrate.

As discussed in the personal interview, the mask substrate includes a front surface and a side surface. A frame member has an inner peripheral surface and a first clearance between the inner peripheral surface and the side surface of the mask substrate. The frame member is detachably disposed to the heating plate.

The outstanding Office Action points to the mold frame (1) of Sudani for the feature of a frame member and points to the lower punch (3) for the feature of a heating plate.¹ The outstanding Office Action relies on the molding compound (4) for the feature of a mask substrate. The outstanding Office Action states that the mold frame (1) has an inner peripheral surface and a first clearance between the inner peripheral surface and the side surface.² However, Applicants respectfully submit that, as discussed in the personal interview, Sudani does not disclose a first clearance between an inner peripheral surface of the mold frame and a side surface of a substrate. Rather, as shown in Fig. 2, the frame member (1) directly contacts the molding compound (4). No clearance is formed between the molding compound (4) and the frame member (1). Additionally, as shown in Figs. 3, 4, and 5, the frame member (1) always directly contacts the molding compound (4). As discussed in the personal interview, Sudani fails to disclose a frame member having an inner peripheral surface and a first clearance between an inner peripheral surface and a side surface of a substrate as recited in independent Claim 1. Accordingly, Applicants respectfully submit that independent Claim 1 patentably distinguishes over Sudani for at least the reasons discussed above.

Additionally, Applicants respectfully submit that Sudani is related to molding equipment and is unrelated to heat processing mask substrates as a person of ordinary skill in the art would understand the term “mask substrate.” Thus, the molding compound (4) poured into the molding equipment described in Sudani and relied on in the outstanding Office

¹ Outstanding Office Action, page 2.

² Outstanding Office Action, page 3.

Action for the feature of a substrate does not correlate to the mask substrate recited in amended independent Claim 1. In other words, not only does Sudani fail to disclose all of the features of independent Claim 1, but Sudani is in a completely different field of technology, and components relied on in the outstanding Office Action for features of independent Claim 1 do not correlate to components recited in independent Claim 1.

Applicants respectfully submit that as independent Claim 1 has not been substantively amended, but instead has been amended to clarify features already claimed, the finality of the outstanding Office Action should be withdrawn and the amendment should be entered.

THE CITED REFERENCE ALSO FAILS TO DISCLOSE NUMEROUS
FEATURES OF THE DEPENDENT CLAIMS.

Amended dependent Claim 3 recites:

The heat processing apparatus as set forth in claim 1,
wherein the inner peripheral surface is curved in a concave
shape.

Accordingly, the inner peripheral surface of the frame member is concave.

Amended dependent Claim 4 recites:

The heat processing apparatus as set forth in claim 1,
wherein the inner peripheral surface is curved in a convex
shape.

Accordingly, Claim 4 requires that the inner peripheral surface has a convex shape.

Amended dependent Claim 5 recites:

The heat processing apparatus as set forth in claim 3,
wherein the inner peripheral surface is a mirror surface.

Accordingly, the inner peripheral surface has a mirror finish.

As discussed in the personal interview, Sudani is devoid of any disclosure of the particular shape of the inner peripheral surface of the frame member or whether the inner peripheral surface of the frame member has a mirror finish.

Dependent Claim 7 recites:

The heat processing apparatus as set forth in claim 3,
further comprising:
a driving mechanism for moving the frame member so
that a distance between the frame member and the side surface
of the mask substrate placed on the heating plate varies.

Accordingly, the driving mechanism moves the frame member to change a distance between the frame member and the surface of the mask substrate.

In contrast, the mold frame (1) is a non-movable cavity in which the molding compound (4) is poured. The mold frame (1) is not driven toward and away from the molding compound (4). Accordingly, Applicants respectfully submit that dependent Claim 7 patentably distinguishes over Sudani for at least the additional reasons discussed above.

Regarding the rejection of Claims 1, 3-10, and 15-16 as anticipated by Ito, Applicants respectfully submit that the priority date of the present application antedates the 35 U.S.C. § 102(e) date of Ito. Accordingly, as an English translation of the priority document along with a statement signed by the translator indicating that "the translation is accurate" is submitted herewith, the Ito reference does not qualify as prior art. Accordingly, Applicants respectfully submit that the rejection of Claims 1, 3-10, and 15-16 as anticipated by Ito is overcome.

Regarding the rejection of Claim 12 as obvious over Sudani or Ito, Applicants respectfully submit that as Claim 12 depends from independent Claim 1, Claim 12 patentably distinguishes over Sudani for at least the same reasons as independent Claim 1 does.

Regarding Ito, as discussed above, Ito does not qualify as prior art against the present application. Therefore, Applicants respectfully submit that the rejection of Claim 12 as obvious over Sudani or Ito is overcome for at least the reasons discussed above.

For the foregoing reasons, it is respectfully submitted that this application is now in condition for allowance. A Notice of Allowance for Claims 1, 3-10, 12, and 15-16 is earnestly solicited.

Should Examiner Luu deem that any further action is necessary to place this application in even better form for allowance, he is encouraged to contact Applicants' undersigned representative at the below-listed telephone number.


Respectfully submitted,

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